

CLAIMS

WHAT IS CLAIMED IS:

1. A method of manufacturing a light source, comprising the steps of:
5 providing a first flexible sheet comprising a first multilayer interference reflector;
providing a carrier film to carry the reflector;
dividing the reflector into individual pieces carried by the carrier film; and
positioning at least one of the individual pieces proximate an LED capable of
10 emitting light that excites a phosphor material.
2. The method according to claim 1, wherein the step of providing a first flexible sheet comprises providing a first flexible sheet comprising a first polymeric multilayer interference reflector.
- 15 3. The method according to claim 1, further comprising applying a layer of phosphor material adjacent the first multilayer interference reflector.
4. The method according to claim 3, wherein the step of applying comprises
20 coating the layer of phosphor material on the first multilayer interference reflector.
5. The method according to claim 3, wherein the step of applying comprises applying a layer of phosphor material comprising an adhesive material to the first multilayer interference reflector.
- 25 6. The method according to claim 3, wherein the step of applying a layer of phosphor material further comprises applying a layer of adhesive between the layer of phosphor material and the first multilayer interference reflector.

7. The method according to claim 3, wherein the step of applying a layer of phosphor material further comprises applying a layer of discontinuous phosphor material to the first flexible sheet to form a phosphor-reflector assembly.
- 5 8. The method according to claim 3, further comprising:
providing a second flexible sheet comprising a second multilayer interference reflector and positioning it adjacent to the layer of phosphor material opposite the first flexible sheet.
- 10 9. The method according to claim 8, wherein the providing a first flexible sheet step comprises providing a first flexible sheet comprising a first multilayer short-pass or long-pass reflector.
10. The method according to claim 9, wherein the providing a second flexible
15 sheet step comprises providing a second flexible sheet comprising a second multilayer short-pass or long-pass reflector.
11. The method according to claim 8, wherein the providing a first flexible sheet step comprises providing a first flexible sheet comprising a first multilayer long-pass reflector, and the providing a second flexible sheet step comprises providing a second
20 flexible sheet comprising a second multilayer short-pass reflector.
12. The method according to claim 1, wherein the step of providing a first flexible sheet comprises providing a first flexible sheet comprising a first polymeric multilayer
25 interference reflector comprising alternating layers of a first and second thermoplastic polymer and wherein at least some of the layers are birefringent.

13. The method according to claim 3, wherein the step of applying comprises applying a discontinuous layer of phosphor material adjacent the first multilayer interference reflector.
- 5 14. The method according to claim 13, wherein the step of applying comprises applying a patterned layer of phosphor material adjacent the first multilayer interference reflector.
15. The method according to claim 13, wherein the step of applying comprises
- 10 applying a plurality of dots of phosphor material adjacent the first multilayer interference reflector.
16. The method according to claim 3, further comprising the step of surface treating the first multilayer interference reflector to promote adhesion of the phosphor
- 15 material to the first multilayer interference reflector prior to applying a layer of phosphor material adjacent the first multilayer interference reflector.